



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604**

DATE: JAN 11 2018

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Chesapeake Exploration LLC - Harrison, Columbiana, & Jefferson
Counties, Ohio

FROM: Natalie Topinka, Environmental Scientist
AECAB (IL/IN)

THRU: Nathan Frank, Section Chief
AECAB (IL/IN)

TO: File

BASIC INFORMATION

Facility Name: Chesapeake Exploration LLC

Facility Locations:

Well Pad Name	GPS Latitude	GPS Longitude
nonresponsive		

nonresponsive

Date of Inspection: September 11-13, 2017

EPA Inspector(s):

1. Natalie Topinka, Environmental Scientist
2. Jason Schenandoah, Environmental Engineer

Other Attendees

1. Mike Hostetler, Production Foreman, Chesapeake
2. Mark Deering, Environmental Specialist, Chesapeake
3. Christopher Huey, Production Superintendent, Chesapeake
4. Gus Jerome, Chesapeake
5. Jim Cooper, Chesapeake
6. Kyle Bardo, Chesapeake

Purpose of Inspection: Assess vapor capture and control system's compliance with NSPS Subparts OOOO/OOOOa and permit conditions

Facility Type: Oil and gas production well pad

Regulations Central to Inspection: NSPS Subparts OOOO/OOOOa for storage vessels and vapor capture and control systems.

Inspection Type:

- ☐ Unannounced Inspection
- ☒ Announced Inspection

- ☒ Credentials Presented
- ☒ CBI warning to facility provided

The following information was obtained verbally from Chesapeake personnel unless otherwise noted.

Process Description:

At the well pad, an oil/gas/water emulsion is extracted from the formation through one or multiple wells. The emulsion goes to a separator, from which the gas is sent to the sales line and

the liquids are piped to separate 400-barrel, atmospheric pressure, fixed-roof tanks on-site. Depending on the volume of production at the well pad, Chesapeake may utilize a flash gas compressor, which recovers gas from a separation stage before the tank battery; a condensate stabilizer, which heats the liquids to further liberate dissolved gases; or a low-pressure tower, which drops the pressure of the liquids being sent to the tanks to about 2-5 psi, and additional dissolved gas is liberated and sent to the pipeline. The headspaces of the condensate and produced water tanks are piped together and the vapors from the tanks are sent to a combustor for destruction. Each tank has a "thief" hatch on top for gaining access to the liquid when necessary, and sites with condensate storage have an additional hatch on each tank for emergency pressure relief capabilities, referred to as the "emergency PRV" or "emergency hatch." The hatches and one or more pressure relief devices on the vapor piping are set to relieve pressure should the pressure due to flashing, working, or breathing emissions from the liquids contained within the tanks get too high for the vapor collection system to the combustor to accommodate. Most tanks are equipped with an automated level gauging probe which penetrates the top of the tank.

We used a FLIR GF320 infrared camera to document any emissions we observed, and a PhoCheck Tiger PID to confirm that emissions observed contain VOC.

September 11, 2017

Williamson Pad

Arrival Time: 1:30 pm

Departure Time: 2:10 pm

Data Collected and Observations:

The Williamson Pad is a dry gas pad that has only two produced water tanks onsite. No condensate liquids are produced by the formation at this well pad. The tanks do not have weighted pressure relief vents or thief hatches. Any vapors that may be emitted from the produced water vent freely to the atmosphere. We did not detect any VOC with the FLIR camera or PID and did not detect any odors.

Photos and/or Videos: were not taken during the inspection.

Field Measurements: were not taken during this inspection.

Kennedy Pad

Arrival Time: 2:55 pm

Departure Time: 3:35 pm

Data Collected and Observations:

When we arrived, we noticed visible emissions from the combustor. We noted that the visible emissions were observable for at least five minutes.

On the day of our inspection, the Kennedy Pad had six condensate tanks and three produced water tanks on site and in use. A flash gas compressor and low pressure tower were also in use. Mr. Schenandoah noted a hydrocarbon odor. We were not able to confirm any source of emissions with the FLIR camera or PID during our time on-site.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

Bryan Shaw Pad

Arrival Time: 3:40 pm

Departure Time: 4:06 pm

Data Collected and Observations:

When we arrived, we noticed visible emissions from the combustor. We noted that the visible emissions were observable for at least five minutes.

On the day of our inspection, the Bryan Shaw Pad had five condensate tanks and three produced water tanks on site and in use. No flash gas compressor nor low pressure tower were in use. All but one thief hatch was tagged with a green tag on 9/3/17. We did not note any odor or emissions with the FLIR camera or PID while we were on top of the tank battery.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

Holmes Pad

Arrival Time: 4:20 pm

Departure Time: 4:42 pm

Data Collected and Observations:

On the day of our inspection, the Holmes Pad had eight condensate tanks and four produced water tanks on site and in use. A flash gas compressor and low pressure tower were also in use. We noted a hydrocarbon odor, and confirmed emissions from pressure relief devices using the FLIR camera. From our vantage point, we were not able to safely reach the pressure relief devices to use the PID.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

Brunk Pad

Arrival Time: 4:55 pm

Departure Time: 5:30 pm

Data Collected and Observations:

On the day of our inspection, the Brunk Pad had five condensate tanks and three produced water tanks on site and in use. A flash gas compressor and low pressure tower were also in use. We noted a hydrocarbon odor, and confirmed emissions from thief hatches and level gauging equipment. We confirmed the emissions contained VOC using the PID.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

September 12, 2017

Bauer Pad

Arrival Time: 8:20 am

Departure Time: 8:45 am

Data Collected and Observations:

On the day of our inspection, the Bauer Pad had five condensate tanks and three produced water tanks on site and in use. A low pressure tower was also in use. We noted a hydrocarbon odor. A thief hatch on Condensate Tank 1 was open. We confirmed emissions from two thief hatches and one emergency hatch with the FLIR camera and confirmed that the emissions contained VOC using the PID.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

Delmar Pad

Arrival Time: 8:53 am

Departure Time: 9:18 am

Data Collected and Observations:

On the day of our inspection, the Delmar Pad had ten condensate tanks and five produced water tanks on site and in use. A low pressure tower was also in use. We confirmed emissions from two thief hatches and the level gauging instrumentation with the FLIR camera and confirmed that the emissions contained VOC using the PID.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

Sauers Pad

Arrival Time: 9:45 am

Departure Time: 10:13 am

Data Collected and Observations:

On the day of our inspection, the Sauers Pad had six condensate tanks and three produced water tanks on site and in use. A low pressure tower was also in use. We noted a hydrocarbon odor. We confirmed emissions from three thief hatches and two emergency hatches with the FLIR camera and confirmed that the emissions contained VOC using the PID. At least one thief hatch had noticeable staining around it on the top and the side of the tank.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

Davis Farms Pad

Arrival Time: 10:20 am

Departure Time: 10:42 am

Data Collected and Observations:

On the day of our inspection, the Davis Farms Pad had five condensate tanks and three produced water tanks on site and in use. A low pressure tower was also in use. We noted a hydrocarbon odor. We confirmed emissions from three thief hatches, three emergency hatches, and one pressure relief device with the FLIR camera and confirmed that the emissions contained VOC using the PID.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

Ellie Pad

Arrival Time: 10:50 am

Departure Time: 11:15 am

Data Collected and Observations:

We had previously stopped at the Ellie Pad at about 9:25 that morning, but decided to return later because a truck was loading and we could not climb the tank battery during that process for safety reasons. On the day of our inspection, the Ellie Pad had ten condensate tanks and five produced water tanks on site and in use. A low pressure tower was on site but not in use. We did not detect any VOC with the FLIR camera or PID and did not observe any odors.

Photos and/or Videos: were not taken during the inspection.

Field Measurements: were not taken during this inspection.

Walters Pad

Arrival Time: 11:34 am

Departure Time: 11:45 am

Data Collected and Observations:

On the day of our inspection, the Walters Pad had five condensate tanks and three produced water tanks on site and in use. A low pressure tower was also in use. We did not detect any VOC with the FLIR camera or PID and did not observe any odors.

Photos and/or Videos: were not taken during the inspection.

Field Measurements: were not taken during this inspection.

Rutledge Pad

Arrival Time: 12:04 pm

Departure Time: 12:32 pm

Data Collected and Observations:

On the day of our inspection, the Rutledge Pad had five condensate tanks and three produced water tanks on site and in use. A low pressure tower was also in use. We noted a hydrocarbon odor. We confirmed emissions from four thief hatches, one emergency hatch, and two pressure relief devices with the FLIR camera and confirmed that the emissions contained VOC using the PID. At least one thief hatch had significant staining around it and down the sides of the tank, and droplets of condensed liquid around the hatch on the top of the tank and the nearby railing. The rest of the surfaces of the tank battery were dry and it had not rained recently.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

Marsha Pad

Arrival Time: 12:43 pm

Departure Time: 12:58 pm

Data Collected and Observations:

On the day of our inspection, the Marsha Pad had five condensate tanks and three produced water tanks on site and in use. A low pressure tower was on site but not in use. We noted a hydrocarbon odor. We confirmed emissions from four thief hatches, four emergency hatches, and three sets of level gauging instrumentation with the FLIR camera and confirmed that the emissions contained VOC using the PID. At least one emergency hatch and thief hatch had significant staining around it and down the sides of the tank. There were droplets of condensed

liquid around the hatch on the top of the tank which had run together and down the side of the tank and formed an oily sheen in the water pooled at the base of the tank in the containment area.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

Burgett Pad

Arrival Time: 1:06 pm

Departure Time: 1:18 pm

Data Collected and Observations:

On the day of our inspection, the Burgett Pad had five condensate tanks and three produced water tanks on site and in use. We did not detect any VOC with the FLIR camera or PID and did not observe any odors.

Photos and/or Videos: were not taken during the inspection.

Field Measurements: were not taken during this inspection.

Griffeth Pad

Arrival Time: 1:18 pm

Departure Time: 1:45 pm

Data Collected and Observations:

A truck had just finished loading upon our arrival. On the day of our inspection, the Griffeth Pad had five condensate tanks and three produced water tanks on site and in use. A low pressure tower was also in use. We noted a hydrocarbon odor and observed visible refraction of the air above a pressure relief valve. We also noted an oil film on the containment water at the base of the tanks. We confirmed emissions from four thief hatches, three emergency hatches, a pressure relief valve, a connector to the tank vapor collection line, and the connecting liquids overflow pipe at one of the condensate tanks with the FLIR camera and confirmed that the emissions contained VOC using the PID.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

Schmuck Farms Pad

Arrival Time: 2:35 pm

Departure Time: 3:07 pm

Data Collected and Observations:

On the day of our inspection, the Schmuck Farms Pad had five condensate tanks and three produced water tanks on site and in use. We noted a hydrocarbon odor and observed visible refraction of the air above a pressure relief valve. We confirmed emissions from eight thief hatches, three emergency hatches, five sets of level gauging instrumentation, and two pressure relief devices on the vapor collection line with the FLIR camera and confirmed that the emissions contained VOC using the PID.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

Stanton Pad

Arrival Time: 3:30 pm

Departure Time: 3:43 pm

Data Collected and Observations:

On the day of our inspection, the Stanton Pad had five condensate tanks and three produced water tanks on site and in use. We noted a hydrocarbon odor. We confirmed emissions from one thief hatch and one emergency hatch with the FLIR camera and confirmed that the emissions contained VOC using the PID.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

Garner Pad

Arrival Time: 3:50 pm

Departure Time: 4:00 pm

Data Collected and Observations:

On the day of our inspection, the Garner Pad had five condensate tanks and three produced water tanks on site and in use. We did not detect any VOC with the FLIR camera or PID and did not observe any odors.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

Putnam Pad

Arrival Time: 4:07 pm

Departure Time: 4:30 pm

Data Collected and Observations:

On the day of our inspection, the Putnam Pad had five condensate tanks and three produced water tanks on site and in use. We did not detect any VOC with the FLIR camera or PID and did not observe any odors. We observed intermittent visible emissions from the combustor.

Photos and/or Videos: were not taken during the inspection.

Field Measurements: were not taken during this inspection.

September 13, 2017

Pidgeon A Pad

Arrival Time: 8:15 am

Departure Time: 8:45 am

Data Collected and Observations:

On the day of our inspection, the Pidgeon A Pad had three condensate tanks and three produced water tanks on site and in use. A low pressure tower was on site but not in use. We noted a hydrocarbon odor from the ground and the top of the tank battery. While we were on site, a "dump event" occurred, and shortly thereafter we could see visible refraction of the air around a thief hatch. Visible condensation was present near another hatch. We confirmed emissions from four thief hatches with the FLIR camera and confirmed that the emissions contained VOC using the PID.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

Lozier Pad

Arrival Time: 8:51 am

Departure Time: 9:10 am

Data Collected and Observations:

On the day of our inspection, the Lozier Pad had five condensate tanks and three produced water tanks on site and in use. A low pressure tower was on site but not in use. We noted a strong hydrocarbon odor and observed visible refraction from one thief hatch and droplets of condensed liquid near another hatch and a set of level gauging instrumentation. We confirmed emissions from five thief hatches, one emergency hatch, and three sets of level gauging instrumentation with the FLIR camera and confirmed that the emissions contained VOC using the PID.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

Hawk Pad

Arrival Time: 9:20 am

Departure Time: 9:38 am

Data Collected and Observations:

On the day of our inspection, the Hawk Pad had three condensate tanks and three produced water tanks on site and in use. A low pressure tower was on site but not in use. We noted a hydrocarbon odor. We confirmed emissions from four thief hatches, one emergency hatch, three sets of level gauging instrumentation and two pressure relief devices with the FLIR camera and confirmed that the emissions contained VOC using the PID.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

Jeffrey Pad

Arrival Time: 9:49 am

Departure Time: 10:04 am

Data Collected and Observations:

On the day of our inspection, the Jeffrey Pad had three condensate tanks and three produced water tanks on site and in use. A low pressure tower was on site but not in use. We confirmed emissions from two thief hatches with the FLIR camera and confirmed that the emissions contained VOC using the PID.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

Pitts Pad

Arrival Time: 10:20 am

Departure Time: 10:45 am

Data Collected and Observations:

On the day of our inspection, the Pitts Pad had three condensate tanks and three produced water tanks on site and in use. We did not detect any VOC with the FLIR camera or PID and did not observe any odors.

Photos and/or Videos: were not taken during the inspection.

Field Measurements: were not taken during this inspection.

Buell Pad

Arrival Time: 11:53m

Departure Time: 12:25 pm

Data Collected and Observations:

On the day of our inspection, the Buell Pad had three condensate tanks and three produced water tanks on site and in use. A low pressure tower was also in use. We noted a hydrocarbon odor, and saw visual refraction from two thief hatches. We confirmed emissions from six thief hatches, two emergency hatches, and one pressure relief device with the FLIR camera and confirmed that the emissions contained VOC using the PID.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

Mattie Pad

Arrival Time: 12:35 pm

Departure Time: 12:53 pm

Data Collected and Observations:

On the day of our inspection, the Mattie Pad had five condensate tanks and three produced water tanks on site and in use. A low pressure tower was also in use. We noted a hydrocarbon odor, and saw visual refraction from three thief hatches and one emergency hatch. We confirmed emissions from five thief hatches, three emergency hatches, and one pressure relief device with the FLIR camera and confirmed that the emissions contained VOC using the PID.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

Helen Halter Pad

Arrival Time: 1:00 pm

Departure Time: 1:20 pm

Data Collected and Observations:

On the day of our inspection, the Helen Halter Pad had eight condensate tanks and four produced water tanks on site and in use. A low pressure tower was on site but not in use. We confirmed emissions from five thief hatches and two emergency hatches with the FLIR camera and confirmed that the emissions contained VOC using the PID.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

CLOSING CONFERENCE

Concerns: We had concerns about the calibration gas being used to calibrate Chesapeake's PID, the LDAR survey methodology (including length of time the probe was held near the component), and the systemic nature of the emissions from the storage vessel batteries.

SIGNATURES

Report Author: Natasha Di Date: 12/21/17

Section Chief: Natasha Date: 1/11/18

Facility Name: Chesapeake Exploration LLC

Facility Location: Harrison, Columbiana, & Jefferson Counties, Ohio

Date of Inspection: September 11-13, 2017

APPENDICES AND ATTACHMENTS

Appendix A – Photo and Video log

Photos and videos included on DVD as Attachment

Facility Name: Chesapeake Exploration LLC

Facility Location: Harrison, Columbiana, & Jefferson Counties, Ohio

Date of Inspection: September 11-13, 2017

APPENDIX A:

PHOTO LOG

1. Inspector Name: Natalie Topinka & Jason Schenandoah	2. Date(s) of Inspection: September 11-13, 2017
3. Company/Facility Name: Chesapeake Exploration LLC	4. Street Address, City, State: Harrison, Columbiana, & Jefferson Counties, Ohio
5. Number of Images: 13	6. Archival Record Location: External storage media labeled as "Chesapeake Exploration LLC Inspection photos and video, Disc 1 of 3"

Image Number	File Name	Date and Time (EST)	Latitude and Longitude	Description of Image
1	DC_1761.jpg	9/12/2017 8:29 AM	40.494917, -81.139433	Bauer
2	DC_1808.jpg	9/12/2017 1:33 PM	40.575767, 0	Griffeth - view down side of tank
3	DC_1812.jpg	9/12/2017 1:39 PM	40.575467, 0	Method 21 Calibration gas
4	DC_1754.jpg	9/11/2017 4:29 PM	40.49545, -81.060333	Holmes - staining at tank hatch
5	DC_1797.jpg	9/12/2017 12:50 PM	40.554517, -81.13365	Marsha - condensate dripping down tank from hatch
6	DC_1798.jpg	9/12/2017 12:50 PM	40.5545, -81.133633	Marsha - condensate dripping down tank from hatch
7	DC_1799.jpg	9/12/2017 12:51 PM	40.5545, 0	Marsha - condensate has run down tank into containment water
8	DC_1800.jpg	9/12/2017 1:07 PM	40.564033, -81.129883	Marsha - condensate has run down tank into containment water

Facility Name: Chesapeake Exploration LLC

Facility Location: Harrison, Columbiana, & Jefferson Counties, Ohio

Date of Inspection: September 11-13, 2017

9	DC_1781.jpg	9/12/2017 12:09 PM	40.53045, -81.1285	Rutledge - staining at tank hatch
10	DC_1787.jpg	9/12/2017 12:24 PM	40.530483, -81.128517	Rutledge - condensed vapors at thief hatch, indicating severe and prolonged vapor emissions
11	DC_1788.jpg	9/12/2017 12:24 PM	40.530483, -81.128517	Rutledge - condensed vapors at thief hatch, indicating severe and prolonged vapor emissions
12	DC_1771.jpg	9/12/2017 9:57 AM	40.502533, -81.130733	Sauers – LDAR-tagged hatch
13	IR_1813.jpg	9/12/2017 2:40 PM	40.610933, -81.039583	Schmuck Farms - Still IR image of hatch and level gauging apparatus

Facility Name: Chesapeake Exploration LLC

Facility Location: Harrison, Columbiana, & Jefferson Counties, Ohio

Date of Inspection: September 11-13, 2017

VIDEO LOG

1. Inspector Name: Natalie Topinka & Jason Schenandoah	2. Date(s) of Inspection: September 11-13, 2017
3. Company/Facility Name: Chesapeake Exploration LLC	4. Street Address, City, State: Harrison, Columbiana, & Jefferson Counties, Ohio
5. Number of Videos: 120	6. Archival Record Location: External storage media labeled as "Chesapeake Exploration LLC Inspection photos and video, Disc 1 of 3"

Video Number	File Name	Date and Time (EST + 5 hrs)	Description of Video
1	MOV_1760.mp4	9/12/2017 1:28:42 PM	Bauer
2	MOV_1762.mp4	9/12/2017 1:35:56 PM	Bauer
3	MOV_1763.mp4	9/12/2017 1:37:44 PM	Bauer
4	MOV_1764.mp4	9/12/2017 1:38:40 PM	Bauer
5	MOV_1755.mp4	9/11/2017 9:59:04 PM	Brunk
6	MOV_1756.mp4	9/11/2017 10:05:40 PM	Brunk
7	MOV_1757.mp4	9/11/2017 10:06:52 PM	Brunk
8	MOV_1758.mp4	9/11/2017 10:10:04 PM	Brunk
9	MOV_1759.mp4	9/11/2017 10:12:00 PM	Brunk
10	MOV_1749.mp4	9/11/2017 8:44:00 PM	Bryan Shaw
11	MOV_1750.mp4	9/11/2017 8:49:58 PM	Bryan Shaw
12	MOV_1751.mp4	9/11/2017 8:55:30 PM	Bryan Shaw
13	MOV_1752.mp4	9/11/2017 9:00:16 PM	Bryan Shaw
14	MOV_1859.mp4	9/13/2017 5:05:56 PM	Buell
15	MOV_1860.mp4	9/13/2017 5:06:58 PM	Buell
16	MOV_1861.mp4	9/13/2017 5:08:04 PM	Buell
17	MOV_1862.mp4	9/13/2017 5:08:50 PM	Buell
18	MOV_1863.mp4	9/13/2017 5:10:20 PM	Buell
19	MOV_1864.mp4	9/13/2017 5:11:42 PM	Buell
20	MOV_1865.mp4	9/13/2017 5:12:56 PM	Buell
21	MOV_1774.mp4	9/12/2017 3:20:18 PM	Davis Farms
22	MOV_1775.mp4	9/12/2017 3:22:22 PM	Davis Farms
23	MOV_1776.mp4	9/12/2017 3:23:38 PM	Davis Farms
24	MOV_1777.mp4	9/12/2017 3:24:44 PM	Davis Farms
25	MOV_1778.mp4	9/12/2017 3:27:28 PM	Davis Farms

Facility Name: Chesapeake Exploration LLC

Facility Location: Harrison, Columbiana, & Jefferson Counties, Ohio

Date of Inspection: September 11-13, 2017

26	MOV_1779.mp4	9/12/2017 3:31:30 PM	Davis Farms
27	MOV_1780.mp4	9/12/2017 3:32:30 PM	Davis Farms
28	MOV_1765.mp4	9/12/2017 1:57:54 PM	Delmar
29	MOV_1766.mp4	9/12/2017 2:01:30 PM	Delmar
30	MOV_1767.mp4	9/12/2017 2:03:12 PM	Delmar
31	MOV_1832.mp4	9/12/2017 8:50:46 PM	Garner
32	MOV_1801.mp4	9/12/2017 6:19:22 PM	Griffeth
33	MOV_1802.mp4	9/12/2017 6:26:04 PM	Griffeth
34	MOV_1803.mp4	9/12/2017 6:28:00 PM	Griffeth
35	MOV_1804.mp4	9/12/2017 6:29:22 PM	Griffeth
36	MOV_1805.mp4	9/12/2017 6:30:06 PM	Griffeth
37	MOV_1806.mp4	9/12/2017 6:30:56 PM	Griffeth
38	MOV_1807.mp4	9/12/2017 6:32:06 PM	Griffeth
39	MOV_1809.mp4	9/12/2017 6:34:28 PM	Griffeth
40	MOV_1810.mp4	9/12/2017 6:35:34 PM	Griffeth
41	MOV_1811.mp4	9/12/2017 6:36:14 PM	Griffeth
42	MOV_1848.mp4	9/13/2017 2:21:58 PM	Hawk
43	MOV_1849.mp4	9/13/2017 2:22:52 PM	Hawk
44	MOV_1850.mp4	9/13/2017 2:24:46 PM	Hawk
45	MOV_1851.mp4	9/13/2017 2:25:42 PM	Hawk
46	MOV_1852.mp4	9/13/2017 2:27:12 PM	Hawk
47	MOV_1853.mp4	9/13/2017 2:28:34 PM	Hawk
48	MOV_1854.mp4	9/13/2017 2:30:40 PM	Hawk
49	MOV_1855.mp4	9/13/2017 2:31:48 PM	Hawk
50	MOV_1856.mp4	9/13/2017 2:32:30 PM	Hawk
51	MOV_1876.mp4	9/13/2017 6:02:28 PM	Helen Halter
52	MOV_1877.mp4	9/13/2017 6:04:42 PM	Helen Halter
53	MOV_1878.mp4	9/13/2017 6:05:48 PM	Helen Halter
54	MOV_1879.mp4	9/13/2017 6:07:12 PM	Helen Halter
55	MOV_1880.mp4	9/13/2017 6:11:52 PM	Helen Halter
56	MOV_1753.mp4	9/11/2017 9:24:38 PM	Holmes
57	MOV_1857.mp4	9/13/2017 2:51:52 PM	Jeffrey
58	MOV_1858.mp4	9/13/2017 2:53:48 PM	Jeffrey
59	MOV_1747.mp4	9/11/2017 8:11:22 PM	Kennedy
60	MOV_1748.mp4	9/11/2017 8:16:16 PM	Kennedy
61	MOV_1837.mp4	9/13/2017 1:51:44 PM	Lozier
62	MOV_1838.mp4	9/13/2017 1:54:00 PM	Lozier
63	MOV_1839.mp4	9/13/2017 1:54:50 PM	Lozier
64	MOV_1840.mp4	9/13/2017 1:56:42 PM	Lozier
65	MOV_1841.mp4	9/13/2017 1:57:32 PM	Lozier
66	MOV_1842.mp4	9/13/2017 1:58:52 PM	Lozier
67	MOV_1843.mp4	9/13/2017 2:00:30 PM	Lozier
68	MOV_1844.mp4	9/13/2017 2:01:46 PM	Lozier
69	MOV_1845.mp4	9/13/2017 2:03:06 PM	Lozier

Facility Name: Chesapeake Exploration LLC

Facility Location: Harrison, Columbiana, & Jefferson Counties, Ohio

Date of Inspection: September 11-13, 2017

70	MOV_1846.mp4	9/13/2017 2:03:42 PM	Lozier
71	MOV_1847.mp4	9/13/2017 2:04:16 PM	Lozier
72	MOV_1789.mp4	9/12/2017 5:43:02 PM	Marsha
73	MOV_1790.mp4	9/12/2017 5:45:00 PM	Marsha
74	MOV_1791.mp4	9/12/2017 5:46:04 PM	Marsha
75	MOV_1792.mp4	9/12/2017 5:46:34 PM	Marsha
76	MOV_1793.mp4	9/12/2017 5:47:40 PM	Marsha
77	MOV_1794.mp4	9/12/2017 5:48:34 PM	Marsha
78	MOV_1795.mp4	9/12/2017 5:49:14 PM	Marsha
79	MOV_1796.mp4	9/12/2017 5:49:46 PM	Marsha
80	MOV_1866.mp4	9/13/2017 5:39:54 PM	Mattie
81	MOV_1867.mp4	9/13/2017 5:40:58 PM	Mattie
82	MOV_1868.mp4	9/13/2017 5:42:10 PM	Mattie
83	MOV_1869.mp4	9/13/2017 5:42:44 PM	Mattie
84	MOV_1870.mp4	9/13/2017 5:43:08 PM	Mattie
85	MOV_1871.mp4	9/13/2017 5:43:52 PM	Mattie
86	MOV_1872.mp4	9/13/2017 5:44:38 PM	Mattie
87	MOV_1873.mp4	9/13/2017 5:45:30 PM	Mattie
88	MOV_1874.mp4	9/13/2017 5:46:26 PM	Mattie
89	MOV_1833.mp4	9/13/2017 1:28:58 PM	Pidgeon A
90	MOV_1834.mp4	9/13/2017 1:31:58 PM	Pidgeon A
91	MOV_1835.mp4	9/13/2017 1:33:46 PM	Pidgeon A
92	MOV_1836.mp4	9/13/2017 1:37:06 PM	Pidgeon A
93	MOV_1782.mp4	9/12/2017 5:19:08 PM	Rutledge
94	MOV_1783.mp4	9/12/2017 5:19:42 PM	Rutledge
95	MOV_1784.mp4	9/12/2017 5:20:10 PM	Rutledge
96	MOV_1785.mp4	9/12/2017 5:21:18 PM	Rutledge
97	MOV_1786.mp4	9/12/2017 5:23:22 PM	Rutledge
98	MOV_1768.mp4	9/12/2017 2:53:12 PM	Sauers
99	MOV_1769.mp4	9/12/2017 2:54:34 PM	Sauers
100	MOV_1770.mp4	9/12/2017 2:55:34 PM	Sauers
101	MOV_1772.mp4	9/12/2017 2:58:58 PM	Sauers
102	MOV_1773.mp4	9/12/2017 3:00:20 PM	Sauers
103	MOV_1814.mp4	9/12/2017 7:41:48 PM	Schmuck Farms
104	MOV_1815.mp4	9/12/2017 7:43:02 PM	Schmuck Farms
105	MOV_1816.mp4	9/12/2017 7:43:50 PM	Schmuck Farms
106	MOV_1817.mp4	9/12/2017 7:45:02 PM	Schmuck Farms
107	MOV_1818.mp4	9/12/2017 7:46:26 PM	Schmuck Farms
108	MOV_1819.mp4	9/12/2017 7:47:28 PM	Schmuck Farms
109	MOV_1820.mp4	9/12/2017 7:48:08 PM	Schmuck Farms
110	MOV_1821.mp4	9/12/2017 7:49:38 PM	Schmuck Farms
111	MOV_1822.mp4	9/12/2017 7:50:34 PM	Schmuck Farms
112	MOV_1823.mp4	9/12/2017 7:51:24 PM	Schmuck Farms
113	MOV_1824.mp4	9/12/2017 7:53:02 PM	Schmuck Farms

Facility Name: Chesapeake Exploration LLC

Facility Location: Harrison, Columbiana, & Jefferson Counties, Ohio

Date of Inspection: September 11-13, 2017

114	MOV_1825.mp4	9/12/2017 7:55:12 PM	Schmuck Farms
115	MOV_1826.mp4	9/12/2017 7:56:12 PM	Schmuck Farms
116	MOV_1827.mp4	9/12/2017 7:57:32 PM	Schmuck Farms
117	MOV_1828.mp4	9/12/2017 7:58:42 PM	Schmuck Farms
118	MOV_1829.mp4	9/12/2017 7:59:20 PM	Schmuck Farms
119	MOV_1830.mp4	9/12/2017 8:00:08 PM	Schmuck Farms
120	MOV_1831.mp4	9/12/2017 8:35:18 PM	Stanton

*MOV_1875.mp4, missing from this list, was a file taken in error and inadvertently deleted onsite.